

Page 47, line 6, change "to share" to --sharing--.

Page 47, line 9, delete "(“ and “described in”.

Page 47, line 9, after “some” insert --specified--.

Page 47, line 10, delete “the DDRAM Arbiter Disclosure”).

Page 47, line 10, change “E.g” to --For example--.

Page 47, line 12, change “Allows” to -- The TSM Arbiter allows --.

Page 53, line 8, change “ports” to --system (DASL)--.

Page 53, line 8, after “chip” insert --(called Rainier)--.

Page 54, delete lines 23-25.

**In the Claims:**

**Please add the following New Claims:**

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Claim 14

- 1 A communications device comprising:
- 2       a control point processor subsystem; and
- 3       a network processor, operatively coupled to said control point processor, including:
- 4       N interface processors,  $N > 1$ ;
- 5       a plurality of media interfaces;
- 6       a plurality of queues coupling the interfaces to the processors wherein the queues provide
- 7 channels through which data enters and leaves the processors;
- 8       memory that stores data passing through said control processor; and
- 9       euqueue/dequeue scheduler responsive to control signal to move data from the memory to
- 10 a selected queue; and

11 said control point process or subsystem including:  
12 control point function generator that generates and forwards to one of said plurality of  
13 media interfaces a guided frame with information that allows said control point processor  
14 subsystem access to registers and memories under control of said network processor.

Claim 15

1 The communications device of Claim 14 wherein the information including at least one word of  
2 frame control information, one word of software correlation, one or a sequence of guided  
3 commands and an end delimiter guided command.

Claim 16

1 The communications device of Claim 14 further including a frame control block register  
2 operatively coupled to the N interface processors, said frame control block register storing  
3 information used to route processed guided frame back to the control point function generator.

Claim 17

1 The communications device of Claim 14 further including a Target Blade Start Of Frame  
2 (TB\_SOF) queue operatively coupled to the N interface processor and storing Guided Frame to  
3 be broadcast.

Claim 18

1 The communications device of Claim 14 wherein the control point processor subsystem includes  
2 a bus;  
3 an arbiter coupled to said bus;  
4 a CPU coupled to said bus;  
5 a DMA controller coupled to the bus;  
6 a Mailbox and DRAM Interface coupled to the bus;

7 an interrupt controller interconnecting the CPU and the Mailbox and DRAM interface;  
8 a DRAM arbiter coupled to the N-interface processor and the Mailbox and DRAM  
9 Interface; and  
10 a DRAM controller coupled to the DRAM arbiter.

Claim 19

1 The communications device of Claim 18 further including at least an interrupt line coupling the  
2 N-processor to the Mailbox and DRAM Interface and a communication line interconnecting one  
of the N-interface processors to the Mailbox and DRAM Interface.

Claim 20

1 The communications device of Claim 14 wherein components of the network processor are  
2 fabricated on a common substrate.

Claim 21

1 The communications device of Claim 20 wherein the control point processor subsystem is  
2 fabricated on the common substrate.

Claim 22

1 The communications device of Claim 14 wherein the control point processor subsystem is  
2 external to a common substrate on which said network processor is fabricated; and  
3 a communications module interconnects the control point processor subsystem to at least  
4 one of the plurality of media interfaces.

Claim 23

1 The communications device of Claim 22 wherein the at least one of the plurality of media  
2 interfaces includes a first ethernet Medium/Access Control, MAC;  
3 and the communications module including:  
4 a second ethernet MAC/PHY coupled to the processor sub-system;  
5 an ethernet PHY coupled to the ethernet MAC/PHY; and  
6 a transmission media coupling the ethernet PHY to the first ethernet MAC.

Claim 24

1 The communications device of Claim 23 further including an interconnecting device  
2 interconnecting the second ethernet MAC/PHY to the processor sub-system; and  
3 a storage operatively connected to said interconnecting device.

Claim 25

1 The communications device of Claim 24 wherein the interconnecting device includes a PCI  
2 bridge.

Claim 26

1 A mechanism for transporting control information in a communications system including a  
2 control point processor sub-system operatively coupled to a network processor, said mechanism  
3 including:

- 4 a function generator; and
- 5 a guided frame generated by the function generator.

6 Said guided frame including:

- 7 a first section in which frame control information is placed and is used by the network
- 8 processor to update at least one control register within said network processor;
- 9 a first section in which frame control information is placed and is used by the network
- 10 processor to update at least one control register within said network processor;

11 a second section carrying correlators assigned by said function generator to correlate  
12 guided frame responses with their requests,  
13 a third section carrying one or a sequence of guided commands; and  
14 an End delimiter guided command.

Claim 27

1 The mechanism of Claim 26 further including said function generator generating routing  
2 information; and  
3 encapsulating the guided frame with the routing information.

Claim 28

1 The mechanism of Claim 26 wherein the routing information including a code identifying a  
2 particular frame type;  
3 a Source Address; and  
4 a Destination Address.

Claim 29

1 The mechanism of Claim 26 wherein the sections are arranged in the order of recitations.

Claim 30

1 The mechanism of Claim 26 wherein the first section includes WORD 0 having a first field with  
2 a set of control bits and a second field carrying target blade information. WORD 1 having a  
3 reserved field, a Source Port field with Source Port information and Source Blade field carrying  
4 Source Blade information.

Claim 31

1 The mechanism of Claim 26 wherein the second section includes one WORD having a Reserved  
2 Field, a length field concatenated to the Reserved Field and at least one correlator WORD  
3 following the length field.

Claim 32

1 The mechanism of Claim 26 wherein each guided command in the third section includes a first  
2 Command Word in which Command Control information is carried said first Command WORD  
3 including a Length Field indicating the total number of 32-bit words contained in the control  
4 information; a completion code field to carry information regarding status of preceding guided  
5 commands; and a guided frame type field carrying a code indicating one of a plurality of  
6 commands;  
7 a Second Command WORD with an Address Field used to identify an element within a network  
8 processor.

Claim 33

1 A method comprising the steps of:  
2 using a control point function located in a control point processor to generate a guided  
3 frame;  
4 using a device driver in said control point processor to send the guided frame to one of a  
5 plurality of media interfaces associated with a network processor;  
6 using Medium Access Control hardware in said media interfaces to recover the guided  
7 frame;  
8 storing the recovered guided frame in a memory; and  
9 routing said stored guided frame to an entity identified in said guided frame.

Claim 34

1 The method of Claim 33 further including the steps of processing said guided frame by said  
2 entity according to instruction carried in said guided frame; and  
3 routing the processed guided frame back to the control point function if required by  
4 information carried in the guided frame.

Claim 35

1 The method of Claim 33 further including the step of encapsulating the guided frame with  
2 network routing information.

Claim 36

1 The method of Claim 35 wherein the network routing information includes ethernet.

Claim 37

1 The apparatus of Claim 26 wherein the function generator includes a software driver.

Claim 38

1 A system comprising:  
2 a network processor having N interface processors,  $N > 1$ ;  
3 a control point processor sub-system operatively coupled to said network processor;  
4 a first function generator operatively positioned within the control point processor, said  
5 first function generator generating at least one guided frame with information that gives said  
6 control point processor subsystem access to registers and memories under control of said network  
7 processor.

Claim 39

1 The system of Claim 38 further including at least one second function generator operatively  
2 positioned in at least one of the N interface processors, said at least one second function